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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,215	12/19/2000	Qi Jia	UNI.15/D	7672
25871	7590	06/01/2004	EXAMINER	
SWANSON & BRATSCHUN L.L.C. 1745 SHEA CENTER DRIVE SUITE 330 HIGHLANDS RANCH, CO 80129			LEITH, PATRICIA A	
			ART UNIT	PAPER NUMBER
			1654	

DATE MAILED: 06/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/741,215

Applicant(s)

JIA ET AL.

Examiner

Patricia Leith

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13,15,16,19,23 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13,15,16,19,23 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Claims 13, 15-16, 19, 23 and 26 remain pending in the Instant application and were examined on the merits.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a previous Office Action.

### ***Claim Rejections - 35 USC § 112***

Claims 13, 15-16, 19, 23 and 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The previous rejections set forth under this statute for New Matter have been removed in light of the most recent arguments.

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However, claims 13, 15-16 19, 23 and 26 are newly rejected for the recitation of 'single solvent system'. It cannot be found in the Instant specification as filed where Applicants described this limitation. Thus, this limitation is deemed to be New Matter.

***Claim Rejections - 35 USC § 102***

Claims 13, 15-16, 23 and 26 are newly rejected under 35 U.S.C. 102(b) as being anticipated by Boulware et al. (1980) as further evidenced by Southard et al. (US 5,013,553).

Boulware et al. (1980) taught that magnoflorine, a composition which satisfies the requirements of the structure in Instant claim 1 (please see Structure 1, p.201) was inherent to species of Zanthoxylum which is evidenced by the (RESULTS section, p.200). Boulware et al. specifically outlined an extraction protocol which included: extraction with hexane followed by methanol, dissolving the methanol residue in 1 M sulfuric acid, extraction with chloroform, neutralization via ammonium hydroxide (to pH 6), extraction with butanol and evaporation (concentration), dissolving in methanol and purification via silica gel (p.203, Experimental). Because the reference teaches every method step recited in the Instant claims, the reference anticipates the claimed invention.

To reiterate, it is deemed that silica gel is a type of ion exchange column, and therefore satisfies the chromatographic method as found in part (c) of claim 1.

It is further noted that the phrase 'single solvent system' has been given its broadest interpretation within reason. It is deemed that Boulware et al. (1980) used a 'single solvent system' in that they used one system comprising solvents in order to purify the Zanthoxylum extract.

***Claim Rejections - 35 USC § 103***

Claims 13, 15-16, 19, 23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boulware et al. (1980).

The teachings of Boulware et al. were taught supra. Boulware et al. did not specifically teach where the silica gel was in a column extractor as recited in claim 19.

One of ordinary skill in the art would have been motivated to have purified magnoflorine in a column extractor in order to achieve an optimized yield of product. It was clear from the teaching of Boulware et al. that the plc (similar to a tlc prep) was used to quantify phytochemicals resulting from the trial extraction procedure performed on Zanthoxylum bark extract. Thus, the ordinary artisan would have recognized that

purification of magnoflorine via a column extractor with silica gel would have been advantageous with regard to a larger scale extraction.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

No Claims are allowed.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia Leith whose telephone number is (571) 272-0968. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brenda Brumback can be reached on (571) 272-0961. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Patricia Leith  
Primary Examiner  
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A handwritten signature in cursive script, reading "Patricia Leith". The signature is written in black ink and is positioned above the printed name and title.

**PATRICIA LEITH  
PRIMARY EXAMINER**